

REMARKS

Claims 1-23 are pending in the application. The disclosure is objected to. Claims 4-6 and 9-23 are objected to. Furthermore, claims 1-3 and 7-8 are rejected under 35 U.S.C. §112, second paragraph. Additionally, claims 1-3 and 7-8 are provisionally rejected on the ground of non-statutory obviousness-type double patenting. In addition, claims 1-3 and 7-8 are rejected under 35 U.S.C. §102(b). Further, claims 1-3 and 7-8 are rejected under 35 U.S.C. §103(a).

Applicants address these objections and rejections below.

I. OBJECTIONS TO THE DISCLOSURE:

The Examiner has objected to the disclosure for not including a substitute specification and a marked-up copy as indicated in the preliminary amendment filed on September 23, 2004. Office Action (10/1/2008), page 2. Applicants enclose herewith the substitute specification and the marked-up copy as indicated in the preliminary amendment per the Examiner's request. Accordingly, Applicants kindly request the Examiner to remove the objections to the disclosure.

II. OBJECTIONS TO THE CLAIMS:

The Examiner has objected to claims 4-6 and 9-23 under 37 C.F.R. §1.75(c) as being in improper form because a multiple dependent claim should refer to claim numbers in the alternative. Office Action (10/1/2008), page 2. As indicated above, Applicants amended claims 4, 6, 9-13, 17-20 and 22-23 to correct the improper form. Consequently, Applicants kindly request the Examiner to withdraw the objections to the claims.

Claims 4, 6, 9-13, 17-20 and 22-23 were amended to correct typographical mistakes and not to overcome prior art. Hence, no prosecution history estoppel arises from the amendments to claims 4, 6, 9-13, 17-20 and 22-23. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 62 U.S.P.Q.2d 1705, 1711-12 (2002); 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2000). Further, the amendments made to claims 4, 6, 9-13, 17-20 and 22-23 were not made for a substantial reason related to patentability and therefore no prosecution history estoppel arises from such amendments. See *Festo*

Corp., 62 U.S.P.Q.2d 1705 at 1707 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 41 U.S.P.Q.2d 1865, 1873 (1997).

III. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH:

The Examiner has rejected claims 1-3 and 7-8 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Office Action (10/1/2008), page 3. In particular, the Examiner indicated that the phrase "exposing the substrate to any, or any combination of, at least two treatment steps" was unclear. *Id.* As indicated above, Applicants amended claim 1 to remove the phrase of "any, or any combination of," to clarify the meaning of claim 1.

Further, the Examiner indicated that the phrase "the exterior and internal surfaces" in claim 1 is unclear to the Examiner. Office Action (10/1/2008), page 3. A rejection under 35 U.S.C. §112, second paragraph, is not appropriate, when the scope of the claimed subject matter can be determined by one having ordinary skill in the art. M.P.E.P. §2173. Applicants respectfully assert that one having ordinary skill in the art can determine the scope of the limitation of "the exterior and internal surfaces," as recited in claim 1. Applicants respectfully direct the Examiner to at least paragraphs [0009, 0019 and 0100] of Applicants' Specification as support for the phrase "the exterior and internal surfaces." The Examiner has not provided any evidence that a person of ordinary skill in the art would not be able to determine the scope of the claimed subject matter in claim 1. One having ordinary skill in the art can determine the scope of the claimed subject matter in claims 1-3 and 7-8. Consequently, Applicants respectfully assert that claims 1-3 and 7-8 are allowable under 35 U.S.C. §112, second paragraph, and respectfully request the Examiner to withdraw the rejections of claims 1-3 and 7-8 under 35 U.S.C. §112, second paragraph.

Further, the Examiner indicated that the (ii) step in claim 1 was causing the Examiner confusion in relation to the phrases "plasma deposition" and "plasma modification." Office Action (10/1/2008), page 3. As indicated above, Applicants

removed the language in claim 1 in connection with "plasma deposition" and "plasma modification."

Additionally, the Examiner indicated that the phrase "the cross-linked material" in claim 1 lacked sufficient antecedent basis. As indicated above, Applicants amended claim 1 to provide sufficient antecedent basis for the phrase "the cross-linked material."

Additionally, the Examiner indicated that the sequence of steps to be performed in claim 2 is unclear. Office Action (10/1/2008), page 4. Claim 2 recites that steps (i) and (ii) are to be performed in sequence, meaning that step (i) is to be performed followed by step (ii). As stated above, a rejection under 35 U.S.C. §112, second paragraph, is not appropriate, when the scope of the claimed subject matter can be determined by one having ordinary skill in the art. M.P.E.P. §2173. Applicants respectfully assert that one having ordinary skill in the art can determine the scope of the limitation of claim 2. The Examiner has not provided any evidence that a person of ordinary skill in the art would not be able to determine the scope of the claimed subject matter in claim 2. Consequently, Applicants respectfully assert that claim 2 is allowable under 35 U.S.C. §112, second paragraph, and respectfully request the Examiner to withdraw the rejection of claim 2 under 35 U.S.C. §112, second paragraph.

Further, the Examiner asserts that the phrase "the precursor gas" in claims 3 and 7 lacks sufficient antecedent basis. Office Action (10/1/2008), page 4. As indicated above, Applicants amended claim 3 to replace the phrase "the precursor gas" with the phrase "a precursor gas."

Additionally, the Examiner rejects claim 7 under 35 U.S.C. §112, second paragraph, for including the phrase "step 2 (ii)" which has not been previously recited. Office Action (10/1/2008), page 4. As indicated above, Applicants amended claim 7 to remove the term "2" to clarify the language of the claim.

As a result of the above, Applicants kindly assert that claims 1-3 and 7-8 are allowable under 35 U.S.C. §112, second paragraph, and respectfully request the Examiner to withdraw the rejections under 35 U.S.C. §112, second paragraph.

IV. REJECTIONS UNDER OBVIOUSNESS-TYPE DOUBLE PATENTING:

The Examiner has provisionally rejected claims 1-2 and 7 under the judicially created doctrine of obviousness-type double patenting in view of claims 1-2 and 13-15 of copending Application No. 10/509,295.

Since none of these Applications at issue have been allowed, Applicants defer responding to this rejection.

Applicants note that if the "provisional" double patenting rejection is the only rejection remaining in an application (either the present application or in Application No. 10/509,295), then the Examiner should withdraw the rejection and permit that application to issue as a patent. M.P.E.P. §804. The "provisional" double patenting rejection may then be converted into a double patenting rejection in the other application at the time the one application issues as a patent. M.P.E.P. §804.

Additionally, the Examiner asserts that claims 1-3 and 7-8 are rejected under the judicially created doctrine of obviousness-type double patenting in view of Badyal et al. (U.S. Patent No. 6,551,950) (hereinafter "Badyal") and in further view of Seki et al. (JP 03-14677) (hereinafter "Seki"). Office Action (10/1/2008), page 6. While Applicants do not believe the Examiner is appropriately issuing an obviousness-type double patenting rejection in connection with these references in accordance with the requirements stated in M.P.E.P. §804, Applicants will still address the Examiner's contention.

Applicants respectfully assert that Badyal is not relevant to the claimed inventions of claims 1-3 and 7-8. Badyal relates to applying a thin film to a body, not as now claimed by the amendments, cross linking the substrate before deposition. As such, Badyal is not relevant to the claimed inventions of claims 1-3 and 7-8. Accordingly, Applicants kindly request the Examiner to withdraw the rejections of claims 1-3 and 7-8 under the judicially created doctrine of obviousness-type double patenting.

V. REJECTIONS UNDER 35 U.S.C. §102(b):

The Examiner has rejected claims 1-3 and 7 under 35 U.S.C. §102(b) as being anticipated by Seki. Further, the Examiner has rejected claims 1, 3 and 7-8 under 35 U.S.C. §102(b) as being anticipated by Badyal. In addition, the Examiner has rejected claims 1-3 and 8 under 35 U.S.C. §102(b) as being anticipated by Schultz Yamasaki et al. (U.S. Patent No. 6,156,394) (hereinafter "Yamasaki"). Additionally, the Examiner has rejected claims 1-2 and 7 under 35 U.S.C. §102(b) as being anticipated by Nguyen et al. (U.S. Patent No. 5,244,730) (hereinafter "Nguyen"). Furthermore, the Examiner has rejected claims 1-3 under 35 U.S.C. §102(b) as being anticipated by Kamel et al. (U.S. Patent No. 5,326,584) (hereinafter "Kamel"). Applicants respectfully traverse these rejections and respectfully request the Examiner to reconsider and to withdraw these rejections.

For a claim to be anticipated under 35 U.S.C. §102, each and every claim limitation must be found within the cited prior art reference and arranged as required by the claim. M.P.E.P. §2131.

A. Claims 1-3 and 7 are not properly rejected under 35 U.S.C. §102(b) as being anticipated by Seki.

The Examiner asserts that the current application is anticipated by Seki, however as admitted by the Examiner, the polymer film is treated to crosslink the plasma film on the fibre, not to cross link the fibre itself. Office Action (10/1/2008), page 6. The currently amended claim 1 clearly teaches that it is the substrate/fibre itself which is cross linked, not a deposited film as taught by Seki. Applicants therefore submit that Seki relates to a different process to impart different properties on a material. Therefore, Seki does not disclose all of the claim limitations of claim 1, and thus Seki does not anticipate claim 1. M.P.E.P. §2131.

Claims 2-3 and 7 each recite combinations of features of independent claim 1, and hence claims 2-3 and 7 are not anticipated by Seki for at least the above-stated reasons that claim 1 is not anticipated by Seki.

As a result of the foregoing, Applicants respectfully assert that not each and every claim limitation was found within Seki, and thus claims 1-3 and 7 are not anticipated by Seki. M.P.E.P. §2131.

- B. Claims 1, 3 and 7-8 are not properly rejected under 35 U.S.C. §102(b) as being anticipated by Badyal.

As stated above, Applicants assert that Badyal is not relevant to the claimed inventions of claim 1. Badyal relates to applying a thin film to a body, not as now claimed by the amendments, cross linking the substrate before deposition. As such, Badyal is not relevant to the claimed inventions of claim 1. Therefore, Badyal does not disclose all of the claim limitations of claim 1, and thus Badyal does not anticipate claim 1. M.P.E.P. §2131.

Claims 3 and 7-8 each recite combinations of features of independent claim 1, and hence claims 3 and 7-8 are not anticipated by Badyal for at least the above-stated reasons that claim 1 is not anticipated by Badyal.

As a result of the foregoing, Applicants respectfully assert that not each and every claim limitation was found within Badyal, and thus claims 1, 3 and 7-8 are not anticipated by Badyal. M.P.E.P. §2131.

- C. Claims 1-3 and 8 are not properly rejected under 35 U.S.C. §102(b) as being anticipated by Yamasaki.

Applicants submit that the currently amended claims are not anticipated by Yamasaki. Yamasaki teaches the plasmachemical cross linking of an optical substrate, PMMA. The purpose of the cross linking in Yamasaki is to improve the adhesion between the substrate and the PMMA optical polymer. Currently amended claim 1 teaches that the method improves the absorbency of the fabric or material substrate. PMMA is a hard glassy polymer and in no way an absorbent material in any respect, either before or after treatment. Yamasaki teaches a method of improving adhesion of a polymer not absorbency of a material and thus is no longer relevant to the currently amended claims and the claimed invention. Therefore, Yamasaki does not disclose all of the claim limitations of claim 1, and thus Yamasaki does not anticipate claim 1. M.P.E.P. §2131.

Claims 2-3 and 8 each recite combinations of features of independent claim 1, and hence claims 2-3 and 8 are not anticipated by Yamasaki for at least the above-stated reasons that claim 1 is not anticipated by Yamasaki.

As a result of the foregoing, Applicants respectfully assert that not each and every claim limitation was found within Yamasaki, and thus claims 1-3 and 8 are not anticipated by Yamasaki I. M.P.E.P. §2131.

- D. Claims 1-2 and 7 are not properly rejected under 35 U.S.C. §102(b) as being anticipated by Nguyen.

Applicants submit that currently amended claim 1 overcomes the anticipation rejection in relation to Nguyen. Nguyen does not disclose the first step of cross linking a substrate or the increased absorbency of the same. Therefore, Nguyen does not disclose all of the claim limitations of claim 1, and thus Nguyen does not anticipate claim 1. M.P.E.P. §2131.

Claims 2 and 7 each recite combinations of features of independent claim 1, and hence claims 2 and 7 are not anticipated by Nguyen for at least the above-stated reasons that claim 1 is not anticipated by Nguyen.

As a result of the foregoing, Applicants respectfully assert that not each and every claim limitation was found within Nguyen, and thus claims 1-2 and 7 are not anticipated by Nguyen. M.P.E.P. §2131.

- E. Claims 1-3 are not properly rejected under 35 U.S.C. §102(b) as being anticipated by Kamel.

Applicants submit that Kamel does not disclose the improved absorbency or cross linking of a material substrate as recited in claim 1. Instead, Kamel discloses the cross linking of hard, completely non-absorbent optical polymers. Thus, Kamel does not disclose all of the claim limitations of claim 1, and thus Kamel does not anticipate claim 1. M.P.E.P. §2131.

Claims 2-3 each recite combinations of features of independent claim 1, and hence claims 2-3 are not anticipated by Kamel for at least the above-stated reasons that claim 1 is not anticipated by Kamel.

As a result of the foregoing, Applicants respectfully assert that not each and every claim limitation was found within Kamel, and thus claims 1-3 are not anticipated by Kamel. M.P.E.P. §2131.

VI. REJECTIONS UNDER 35 U.S.C. §103(a):

The Examiner has rejected claims 1-3 and 7-8 under 35 U.S.C. §103(a) as being unpatentable over Badyal in view of Seki. Furthermore, the Examiner has rejected claims 2 and 8 under 35 U.S.C. §103(a) as being unpatentable over Kamel in view of Yamasaki. Applicants respectfully traverse these rejections for at least the reasons stated below and respectfully request the Examiner to reconsider and to withdraw these rejections.

A. Claims 1-3 and 7-8 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Badyal in view of Seki.

As stated above, Applicants assert that Badyal is not relevant to the claimed invention of claim 1. Badyal relates to applying a thin film to a body, not as now claimed by the amendments, cross linking the substrate before deposition. As such, Badyal is not relevant to the claimed inventions of claim 1. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 1, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Claims 2-3 and 7-7 each recite combinations of features of independent claim 1, and hence claims 2-3 and 7-8 are patentable over Badyal in view of Seki for at least the above-stated reasons that claim 1 is patentable over Badyal in view of Seki.

B. Claims 2 and 8 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Kamel in view of Yamasaki.

Claims 2 and 8 each recite combinations of independent claim 1, and hence claims 2 and 8 are patentable over Kamel in view of Yamasaki for at least the above-stated reasons that claim 1 is not anticipated by Kamel and for at least the above-stated reasons that claim 1 is not anticipated by Yamasaki.

VII. CONCLUSION:

As a result of the foregoing, it is asserted by Applicants that claims 1-23 in the Application are in condition for allowance, and Applicants respectfully request an allowance of such claims. Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining issues.

Respectfully submitted,

WINSTEAD P.C.

Attorneys for Applicants

By: 

Robert A. Voigt, Jr.
Reg. No. 47,159

P.O. Box 50784
Dallas, TX 75201
(512) 370-2832

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